



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

April 9, 2003

Mr. Frank Ianucilli
North American Van Lines
P.O. Box 988
Fort Wayne, Indiana 46801-0988

Re: **003-16790**
First Minor Revision to
FESOP 003-13899-00208

Dear Mr. Ianucilli:

North American Van Lines was issued a permit on August 19, 2002 for a motor freight and warehousing source. A letter requesting changes to this permit was received on February 7, 2003. Pursuant to the provisions of 326 IAC 2-8-11.1 a Minor Permit Revision to this permit is hereby approved as described in the attached Technical Support Document.

The revision consists of one (1) proposed spray booth which will be incorporated as part of the VOC and HAP limits in the reporting requirements.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. For your convenience, the revised pages of the FESOP Renewal is being provided.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Michael S. Schaffer, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395 ext. 15 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,
Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

MSS/MES

cc: File - Allen County
U.S. EPA, Region V
Allen County Health Department
Air Compliance Section Inspector - Jennifer Dorn
Compliance Branch - Karen Nowak
Administrative and Development - Lisa Lawrence
Technical Support and Modeling - Michele Boner



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FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

**North American Van Lines
5001 U.S. Highway 30 West
Fort Wayne, Indiana 46818**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: F 003-13899-00208

Original signed by Paul Dubenetzky
Issued by:
Paul Dubenetzky, Branch Chief
Office of Air Quality

Issuance Date: August 19, 2002

Expiration Date: August 19, 2007

First Minor Permit Revision 003-16790-00208

Changed Pages: 3, 5, 24 - 26, 32, and 34 - 37
Pages Added: 5a

Issued by: **Original signed by**
Paul Dubenetzky, Branch Chief
Office of Air Quality

Issuance Date: **April 9, 2003**



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]
- C.12 Monitoring Methods [326 IAC 3] [40 CFR 60][40 CFR 63]

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]
- C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports
[326 IAC 2-8-4, 5]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4, 5]

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

- C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]
- C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

Stratospheric Ozone Protection

- C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

SECTION D.1 FACILITY OPERATION CONDITIONS: Four (4) spray paint booths

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]
- D.1.2 Hazardous Air Pollutants (HAPs) Limitations [326 IAC 2-8-4]
- D.1.3 Particulate Matter (PM) [40 CFR 52 Subpart P]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.5 Volatile Organic Compounds (VOC)
- D.1.6 VOC Emissions
- D.1.7 Hazardous Air Pollutants (HAPs)
- D.1.8 Hazardous Air Pollutants (HAPs) Emissions
- D.1.9 Particulate [326 IAC 6-3-2(d)]

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

- D.1.10 Monitoring
- D.1.11 Nonapplicability of Daily Visible Emissions Notations

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.1.12 Record Keeping Requirements
- D.1.13 Reporting Requirements

SECTION D.2 FACILITY OPERATION CONDITIONS: Two (2) fuel oil storage tanks

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

- D.2.1 Record Keeping Requirements [326 IAC 12] [40 CFR 60.116b Subpart Kb]

SECTION D.3 FACILITY OPERATION CONDITIONS: Insignificant Activities

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.3.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]
- D.3.2 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

- D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
- D.3.4 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary motor freight and warehousing source.

Authorized Individual:	Vice President of Fleet Services
Source Address:	5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address:	P.O. Box 988, Fort Wayne, Indiana 46801-0988
General Source Phone Number:	260 - 429 - 1390
SIC Code:	4213
County Location:	Allen County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) Three (3) spray paint booths, known as E1 (Paint Rooms A and D), E2 (Paint Room B) and E3 (Paint Room C), constructed prior to 1975, equipped with three (3) low pressure air atomized spray guns that operate one (1) at a time, and dry filters for overspray control, exhausting to stacks E1, E2, and E3, respectively, capacity: 0.38 trailers per hour, each.
- (b) One (1) spray paint booth, known as E4 (Paint Room E), consisting of undercoat, topcoat, or washdown operations that operate one (1) at a time, equipped with low pressure air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks E4a, E4b, E4c, and E4d, capacity: 0.25 trailers per hour.
- (c) Two (2) fuel oil storage tanks, known as Tanks 1 and 2, constructed in 1990, capacity: 15,000 gallons, each.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour. including the following.
 - (1) Two (2) natural gas fired air make up units, heat input capacity: 3.85 million British thermal units per hour, each;
 - (2) One (1) natural gas fired air make up unit, heat input capacity: 2.79 million British

thermal units per hour;

- (3) Thirty-seven (37) natural gas fired tube heaters, heat input capacity: 0.10 million British thermal units per hour, each;
- (4) Forty-two (42) natural gas fired space heaters, heat input capacity: 0.16 million British thermal units per hour, each;

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Four (4) spray paint booths

- (a) Three (3) spray paint booths, known as E1 (Paint Rooms A and D), E2 (Paint Room B) and E3 (Paint Room C), constructed prior to 1975, equipped with three (3) low pressure air atomized spray guns that operate one (1) at a time, and dry filters for overspray control, exhausting to stacks E1, E2, and E3, respectively, capacity: 0.38 trailers per hour, each.
- (b) One (1) spray paint booth, known as E4 (Paint Room E), consisting of undercoat, topcoat, or washdown operations that operate one (1) at a time, equipped with low pressure air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks E4a, E4b, E4c, and E4d, capacity: 0.25 trailers per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

- (a) The total amount of VOC delivered to the applicators at the four (4) spray paint booths (E1, E2, E3, and E4) shall not exceed 95.5 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will limit the potential to emit VOC from the entire source, including insignificant activities to less than one hundred (100) tons per year. Compliance with this limit shall make the requirements of 326 IAC 2-7, not applicable.
- (b) The requirements from FESOP 003-5768-00208, issued on December 9, 1996, Condition D.1.1, that the volatile organic compound (VOC) emissions from the three (3) paint booths (E1, E2, and E3) shall not exceed 8.25 tons per month has not been included in the renewal because the limit in Condition D.1.1(a) shall limit the potential to emit VOC from the entire source to less than one hundred (100) tons of VOC per year. Thus, the requirements of 326 IAC 2-7 are still not applicable and Condition D.1.1 of FESOP 003-5768-00208 is hereby rescinded.

D.1.2 Hazardous Air Pollutants (HAPs) Limitations [326 IAC 2-8-4]

- (a) The total worst case single HAP delivered to the coating applicators consisting of the four (4) spray paint booths (E1, E2, E3, and E4) shall not exceed 9.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will limit the potential to emit of a single HAP for the entire source, including insignificant activities, to less than ten (10) tons per year. Compliance with this limit shall make the requirements of 326 IAC 2-7 not applicable.
- (b) The total combination of HAPs delivered to the coating applicators consisting of the four (4) spray paint booths (E1, E2, E3, and E4) shall not exceed 24.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will limit the potential to emit of the combination of HAPs from the entire source, including insignificant activities, to less than twenty-five (25) tons per year. Compliance with this limit shall make the requirements of 326 IAC 2-7 not applicable.
- (c) The requirements from FESOP 003-5768-00208, issued on December 9, 1996, Condition D.1.2 that the amount of any single hazardous air pollutant (HAP) delivered to the applicators shall not exceed 0.75 tons per month and the amount of any combination of HAPs delivered

to the applicators shall not exceed 2.00 tons per month has not been included in the renewal because the limit in Condition D.1.2(a) and (b) shall make the requirements of 326 IAC 2-7 still not applicable. Thus, Condition D.1.2 of FESOP 003-5768-00208 is hereby rescinded.

D.1.3 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to FESOP 003-5768-00208, issued on December 9, 1996 and 40 CFR 52 Subpart P, the PM from the four (4) spray paint booths (E1, E2, E3, and E4) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for the four (4) spray paint booths and the dry filters.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC)

Compliance with the VOC usage limitation contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.1.6 VOC Emissions

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the twelve (12) month period.

D.1.7 Hazardous Air Pollutants (HAPs)

Compliance with the HAPs usage limitations contained in Condition D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.1.8 Hazardous Air Pollutants (HAPs) Emissions

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the total single and total combination HAPs usage for the twelve (12) month period.

D.1.9 Particulate [326 IAC 6-3-2(d)]

Pursuant to FESOP 003-5768-00208, issued on December 9, 1996, 326 IAC 6-3-2(d) and in order to comply with Condition D.1.3, the dry filters for particulate control shall be in operation at all times in accordance with manufacturer's specifications when the four (4) spray paint booths (E1, E2, E3, and E4) are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.10 Monitoring

-
- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (E1, E2, E3, E4a, E4b, E4c, and E4d) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
 - (b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
 - (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.1.11 Nonapplicability of Daily Visible Emissions Notations

The requirement from FESOP 003-5768-00208, issued on December 9, 1996, Condition D.1.7 to perform daily visible emissions notations has not been included in the renewal. This requirement is no longer applicable because the daily inspections of the filter, weekly observations of the overspray from the stacks and monthly inspections of emissions required by Condition D.1.10 are sufficient compliance monitoring requirements to ensure compliance with the applicable rules. Thus, Condition D.1.7 of FESOP 003-5768-00208 is hereby rescinded.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.12 Record Keeping Requirements

-
- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and the VOC emission limits established in Condition D.1.1 and the HAPs usage limits and the HAPs emission limits established in Condition D.1.2.
 - (1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup and degreasing solvents;
 - (2) The cleanup solvent usage for each month;
 - (3) The total VOC, as well as total individual HAP and total combination of HAPs usage for each month; and
 - (4) The weight of VOCs, as well as total individual and total HAPs emitted for each compliance period.

- (b) To document compliance with Conditions D.1.9 and D.1.10, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana 46801-0988
FESOP No.: F 003-13899-00208

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
 (The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 (The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana 46801-0988
FESOP No.: F 003-13899-00208
Facilities: Four (4) spray paint booths, known as E1, E2, E3, and E4
Parameter: VOC delivered to the applicators
Limit: Total not to exceed 95.5 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Total VOC usage (tons)	Total VOC usage (tons)	Total VOC usage (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana 46801-0988
FESOP No.: F 003-13899-00208
Facilities: Four (4) spray paint booths, known as E1, E2, E3, and E4
Parameter: Individual HAP delivered to the applicators
Limit: Total not to exceed 9.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Individual HAP Usage (tons)	Individual HAP Usage (tons)	Individual HAP Usage (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

FESOP Quarterly Report

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana 46801-0988
FESOP No.: F 003-13899-00208
Facilities: Four (4) spray paint booths, known as E1, E2, E3, and E4
Parameter: Combination of HAPs delivered to the applicators
Limit: Total not to exceed 24.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Combination of HAPs Usage (tons)	Combination of HAPs Usage (tons)	Combination of HAPs Usage (tons)
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana 46801-0988
FESOP No.: F 003-13899-00208

Months: _____ to _____ Year: _____

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

Permit Requirement (specify permit condition #)

Date of Deviation:

Duration of Deviation:

Number of Deviations:

Probable Cause of Deviation:

Response Steps Taken:

April 9, 2003

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit

Source Background and Description

Source Name: North American Van Lines
Source Location: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
County: Allen
SIC Code: 4213
Operation Permit No.: F 003-13899-00208
Operation Permit Issuance Date: August 19, 2002
Minor Permit Revision No.: MPR 003-16790-00208
Permit Reviewer: Michael S. Schaffer

The Office of Air Quality (OAQ) has reviewed a minor permit revision application from North American Van Lines relating to the construction and operation of the following emission units and pollution control devices:

One (1) spray paint booth, known as E4 (Paint Room E), consisting of undercoat, topcoat, or washdown operations that operate one (1) at a time, equipped with low pressure air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks E4a, E4b, E4c, and E4d, capacity: 0.25 trailers per hour.

History

On February 7, 2003, North American Van Lines submitted an application to the OAQ requesting to add an additional surface coating booth to their existing plant. North American Van Lines was issued a Federally Enforceable State Operating Permit (FESOP) Renewal on August 19 2002. North American Van Lines has requested to incorporate the proposed spray paint booth in each existing surface coating emission limitation that is currently in Section D.1 of F 003-13899-00208, issued on August 19, 2002.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
E4a	Paint Room E	12.5	2.50	15,000	80.0
E4b	Paint Room E	12.5	2.50	15,000	80.0
E4c	Paint Room E	12.5	2.50	15,000	80.0

E4d	Paint Room E	12.5	2.50	15,000	80.0
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Recommendation

The staff recommends to the Commissioner that the FESOP Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 7, 2003. Additional information was received on March 5 and 13, 2003.

Emission Calculations

See Pages 1 and 2 of 2 of Appendix A of this document for detailed emissions calculations.

Potential To Emit of Revision

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	4.77
PM ₁₀	4.77
SO ₂	-
VOC	10.3
CO	-
NO _x	-

HAPs	Potential To Emit (tons/year)
Xylene	2.54
Toluene	1.47
MEK	3.68
Ethyl Benzene	3.03
MIBK	5.12
Methanol	1.53

Worst Case Total	10.4
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Note that the "worst case" total HAPs are not equal to the sum of the worst case single HAPs. See Pages 2 of 2 of Appendix A for detailed information on HAPs emissions.

Justification for Revision

The FESOP is being revised through a FESOP Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-8-11.1(d)(4)(A) and (D), since the potential to emit the potential to emit VOC from this revision is greater than ten (10) tons per year, but less than twenty-five (25) tons per year.

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Allen County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	44.9
PM ₁₀	44.8
SO ₂	0.138
VOC	Less Than 100

CO	17.2
NO _x	40.9

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.
- (b) These emissions are based upon the Page 6 of the TSD from F 003-13899-00208, issued on August 19, 2002

Potential to Emit of Revision After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units. The control equipment is considered federally enforceable only after issuance of this FESOP revision.

	Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Four (4) spray paint booths (E1, E2, E3 and E4)	48.5	48.5	-	95.5	-	-	Single 9.0 Total 24.0
Two (2) fuel oil storage tanks, (Tanks 1 and 2)	-	-	-	0.07	-	-	Negligible
Insignificant Activities	1.05	0.982	0.079	4.32	17.2	40.9	Total Less Than 1
Total PTE After Issuance	52.1	52.0	0.079	Less Than 100	17.2	40.9	Single less than 10 Total less than 25

This revision to the existing FESOP will **not** change the status of the stationary source because the emissions from the entire source will still be limited to less than the Part 70 major source thresholds.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed revision.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed revision.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This motor freight and warehousing source is not 1 of the 28 major PSD source categories pursuant to 326 IAC 2-2. The three (3) existing spray paint booths were each constructed prior to 1975, which is prior to the August 7, 1977 applicability date of this rule. The potential-to-emit each of the criteria pollutants from the entire source, including the proposed spray paint booth in this revision, is less than 250 tons per year. Therefore, this source is considered a minor PSD source.

On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3(Process Operations). As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the following requirements from the previous version of 326 IAC 6-3 (Process Operations) which has been approved into the SIP will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

326 IAC 6-3-2 (Process Operations)

Pursuant to 40 CFR 52 Subpart P the particulate matter (PM) from the one (1) spray paint booth (E4) shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

Under the rule revision, particulate from the one (1) spray paint booth (E4) shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer's specifications.

326 IAC 8-1-6 (New facilities, general reduction requirements)

The one (1) proposed spray paint booth, identified as E4, is not subject to the requirements of 326 IAC 8-1-6 because its potential to emit is less than twenty-five (25) tons per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

This source does not surface coat large farm machinery, small household appliances, office equipment, or industrial machinery. Furthermore, this source coats metal parts or products under the Standard Industrial Classification (SIC) Code #42 which is not one the SIC codes listed in 326 IAC 8-2-9(a)(5). Therefore, the requirements of 326 IAC 8-2-9 do not apply to the one (1) proposed spray paint booth.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The one (1) spray paint booth has the following compliance monitoring requirements:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (E4a, E4b, E4c, and E4d) while one or more of the booths exhausting to that stack are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the dry filters for overspray control must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Testing Requirements

There will be no testing requirements for the one (1) proposed spray paint booth (E4) because VOC emissions are uncontrolled and particulate emissions will be controlled by dry filters which must operated in accordance with manufacturer's specifications as well as inspected daily.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

- (b) **One (1) spray paint booth, known as E4 (Paint Room E), consisting of undercoat, topcoat, or washdown operations that operate one (1) at a time, equipped with low pressure air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks E4a, E4b, E4c, and E4d, capacity: 0.25 trailers per hour.**
- ~~(b)~~(c) Two (2) fuel oil storage tanks, known as Tanks 1 and 2, constructed in 1990, capacity: 15,000 gallons, each.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: ~~Three (3)~~ **Four (4)** spray paint booths

- (a) Three (3) spray paint booths, known as E1 (Paint Rooms A and D), E2 (Paint Room B) and E3 (Paint Room C), constructed prior to 1975, equipped with three (3) low pressure air atomized spray guns that operate one (1) at a time, and dry filters for overspray control, exhausting to stacks E1, E2, and E3, respectively, capacity: 0.38 trailers per hour, each.
- (b) **One (1) spray paint booth, known as E4 (Paint Room E), consisting of undercoat, topcoat, or washdown operations that operate one (1) at a time, equipped with low pressure air atomized spray guns and dry filters to control particulate overspray, exhausting to Stacks E4a, E4b, E4c, and E4d, capacity: 0.25 trailers per hour.**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8-4]

- (a) The total amount of VOC delivered to the applicators at the ~~three (3)~~ **four (4)** spray paint booths (E1, E2, E3, and **E4**) shall not exceed 95.5 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will limit the potential to emit VOC from the entire source, including insignificant activities to less than one hundred (100) tons per year. Compliance with this limit shall make the requirements of 326 IAC 2-7, not applicable.

D.1.2 Hazardous Air Pollutants (HAPs) Limitations [326 IAC 2-8-4]

- (a) The total worst case single HAP delivered to the coating applicators consisting of the ~~three (3)~~ **four (4)** spray paint booths (E1, E2, E3, and **E4**) shall not exceed 9.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This will limit the potential to emit of a single HAP for the entire source, including insignificant activities, to less than ten (10) tons per year. Compliance with this limit shall make the requirements of 326 IAC 2-7 not applicable.
- (b) The total combination of HAPs delivered to the coating applicators consisting of the ~~three (3)~~ **four (4)** spray paint booths (E1, E2, E3, and **E4**), shall not exceed 24.0 tons per twelve (12)

consecutive month period with compliance determined at the end of each month. This will limit the potential to emit of the combination of HAPs from the entire source, including insignificant activities, to less than twenty-five (25) tons per year. Compliance with this limit shall make the requirements of 326 IAC 2-7 not applicable.

D.1.3 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to FESOP 003-5768-00208, issued on December 9, 1996 and 40 CFR 52 Subpart P, the PM from the ~~three (3)~~ **four (4)** spray paint booths (E1, E2, E3, and **E4**) shall not exceed the pound per hour emission rate established as E in the following formula:

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B.13 - Preventive Maintenance Plan, of this permit, is required for the ~~three (3)~~ **four (4)** spray paint booths and the dry filters.

Compliance Determination Requirements

D.1.9 Particulate [326 IAC 6-3-2(d)]

Pursuant to FESOP 003-5768-00208, issued on December 9, 1996, 326 IAC 6-3-2(d) and in order to comply with Condition D.1.3, the dry filters for particulate control shall be in operation at all times in accordance with manufacturer's specifications when the ~~three (3)~~ **four (4)** spray paint booths (E1, E2, E3 and **E4**) are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.10 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (E1, E2, E3, **E4a, E4b, E4c** and **E4d**) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
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Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana ~~46818~~ **46801-0988**
FESOP No.: F 003-13899-00208

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana ~~46818~~ **46801-0988**
FESOP No.: F 003-13899-00208
Facilities: ~~Three (3)~~ **Four (4)** spray paint booths, known as E1, E2, E3, and **E4**
Parameter: VOC delivered to the applicators
Limit: Total not to exceed 95.5 tons per twelve (12) consecutive month period with compliance determined at the end

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana ~~46818~~ **46801-0988**
FESOP No.: F 003-13899-00208
Facilities: ~~Three (3)~~ **Four (4)** spray paint booths, known as E1, E2, E3, and **E4**
Parameter: Individual HAP delivered to the applicators
Limit: Total not to exceed 9.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana ~~46818~~ **46801-0988**
FESOP No.: F 003-13899-00208
Facilities: ~~Three (3)~~ **Four (4)** spray paint booths, known as E1, E2, E3, and **E4**
Parameter: Combination of HAPs delivered to the applicators
Limit: Total not to exceed 24.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: North American Van Lines
Source Address: 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
Mailing Address: P.O. Box 988, Fort Wayne, Indiana ~~46818~~ **46801-0988**
FESOP No.: F 003-13899-00208

Conclusion

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Minor Permit Revision No. MPR 003-16790-00208.

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

**Company North American Van Lines
Address 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
FESOP Ref MPR 003-16790
Plt ID: 003-00208
Reviewer: Michael S. Schaffer
Date: February 7, 2003**

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency
Room E																
<i>Undercoating Operation</i>																
E360 Epoxy Primer/Sealer	10.61	40.20%	0.0%	40.2%	0.0%	59.73%	1.000	0.250	4.27	4.27	1.07	25.59	4.67	3.47	7.14	50%
E375 Hardener	7.46	68.36%	0.0%	68.4%	0.0%	31.64%	1.000	0.250	5.10	5.10	1.27	30.60	5.58	1.29	16.12	50%
											2.34	56.2	10.3	4.77		
<i>Topcoat Operation</i>																
N0141H1 White Urethane	8.96	51.00%	0.0%	51.0%	0.0%	49.00%	1.500	0.250	4.57	4.57	1.71	41.13	7.51	3.61	9.33	50%
200-Activator	7.79	56.10%	0.0%	56.1%	0.0%	43.90%	0.500	0.250	4.37	4.37	0.546	13.1	2.39	0.94	9.95	50%
Super Accelarotor Catylist	7.25	98.50%	0.0%	98.5%	0.0%	1.50%	0.030	0.250	7.14	7.14	0.054	1.29	0.235	0.00	476.08	50%
											2.31	55.5	10.1	4.54		
<i>Washdown Operation</i>																
AE60 Acid-Etch Washprime	9.76	50.90%	0.0%	50.9%	0.0%	49.10%	0.500	0.250	4.97	4.97	0.62	14.90	2.72	1.31	10.12	50%
R60F Reducer/Additive	6.92	100.00%	0.0%	100.0%	0.0%	100.00%	0.500	0.250	6.92	6.92	0.87	20.76	3.79	0.00	6.92	50%
											1.49	35.66	6.51	1.31		

Note that coatings are "as applied" to the applicators

PM Control Efficiency 95.00%

Potential to Emit	Add worst case coating to all solvents	"Worst Case" Uncontrolled	2.34	56.2	10.3	4.77
		"Worst Case" Controlled	2.34	56.2	10.3	0.238

METHODOLOGY

The "Worst Case" Potential to Emit is based on one (1) process (undercoat, topcoat, and washdown) operating at a time within the paint booth for Room E

The "Worst Case" operation for the one (1) paint booth in Room E is primer/sealer

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations
HAP Emission Calculations**

**Company N North American Van Lines
Address Cit 5001 U.S. Highway 30 West, Fort Wayne, Indiana 46818
FESOP Rev MPR 003-16790
Plt ID: 003-00208
Reviewer: Michael S. Schaffer
Date: February 7, 2003**

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximu (unit/hr)	Weight % Xylene	Weight % Toluene	Weight % MEK	Weight % Ethyl Benz	Weight % MIBK	Weight % Methanol	Xylene Emissior (tons/yr)	Toluene Emissions (tons/yr)	MEK Emissio (tons/yr)	Ethyl Benze Emissions (tons/yr)	MIBK Emissions (tons/yr)	Methano Emissior (tons/yr)
Room E															
<i>Undercoating Operation</i>															
E360 Epoxy Primer/Sealer	10.61	1.000	0.250	20.00%	0.00%	0.00%	5.00%	7.00%	0.00%	2.32	0.00	0.00	0.58	0.81	0.00
E375 Hardener	7.46	1.000	0.250	0.00%	0.00%	30.00%	30.00%	0.00%	0.00%	0.00	0.00	2.45	2.45	0.00	0.00
										2.32	0.00	2.45	3.03	0.81	0.00
<i>Topcoat Operation</i>															
N0141H1 White Urethane	8.96	1.500	0.250	0.00%	10.00%	25.00%	0.00%	19.70%	0.00%	0.000	1.47	3.68	0.000	2.90	0.00
200-Activator	7.79	0.500	0.250	0.00%	0.00%	0.00%	0.00%	52.00%	0.00%	0.000	0.00	0.00	0.000	2.22	0.00
Super Accelarotor Catylis	7.25	0.030	0.250	29.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.069	0.00	0.00	0.048	0.00	0.00
										0.069	1.47	3.68	0.048	5.12	0.00
<i>Washdown Operation</i>															
AE60 Acid-Etch Washprim	9.76	0.500	0.250	5.00%	5.00%	0.00%	2.00%	0.00%	18.00%	0.27	0.267	0.00	0.107	0.00	0.96
R60F Reducer/Additive	6.92	0.500	0.250	60.00%	0.00%	30.00%	12.00%	0.00%	15.00%	2.27	0.000	1.14	0.455	0.00	0.57
										2.54	0.267	1.14	0.562	0.00	1.53
"Worst Case"										2.54	1.47	3.68	3.03	5.12	1.53
"Worst Case"										10.4					

METHODOLOGY

"Worst Case" total HAPs emissions are based on the same methodology as used on Page 1
HAPs emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs